BOX PATENT EXT.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Atty. Docket No. 0701.243

In re: U.S. Patent No. 6,444,673

Patentee: Claude COTREL, *et al.*

Assignee: Sepracor Inc.

Issue date: September 3, 2002

REQUEST FOR EXTENSION OF PATENT TERM UNDER 35 U.S.C. §156

Director of the United States Patent and Trademark Office

Washington, D.C. 20231

BOX PATENT EXT.

Sir:

Pursuant to Section 201(a) of the Drug Price Competition and Patent Term Restoration Act of 1984, 35 U.S.C. § 156, Sepracor Inc. ("Sepracor"), represents that it is the owner of record of United States Patent No. 6,444,673 and hereby requests an extension of the patent term of U.S. Patent No. 6,444,673.

The following information is submitted in accordance with 35 U.S.C. § 156(d) and 37 C.F.R. § 1.740, and follows the format and requirements set forth in 37 C.F.R. § 1.740.

2005E-0255

APP 1

(1) "A complete identification of the approved product as by appropriate chemical and generic name, physical structure or characteristics;" 37 C.F.R. §1.740(a) (1).

The approved[1] product is LUNESTA™ (eszopiclone), film-coated tablets, 1 mg, 2 mg and 3 mg, for oral administration. The generic name for the approved product is eszopiclone, which is indicated for the treatment of insomnia, including difficulty falling asleep and/or maintaining sleep.

Synonyms for eszopiclone are:

ESTORRA™;

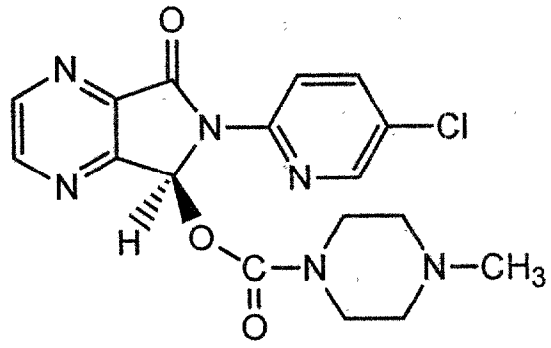
esopiclone;

(+)-zopiclone; and

(S)-zopiclone.

The eszopiclone is identified by the following:

(a) Structural Formula:



(b) Chemical names:

[1] As described more fully on pages 3-4, this request for extension is submitted based on FDA's determination that LUNESTA™ was "approved" on December 15, 2004, for purposes of determining patent term restoration. Sepracor questions this determination by FDA and does not waive its right to challenge that agency determination following submission of this request for extension.

(+)-(5S)- 6-(5-chloro-2-pyridyl)-5-[(4-methyl-1-piperazinyl)carbonyloxy]-7-oxo-6,7-dihydro-5H-pyrrolo[3,4-b]pyrazine;

(+)-(5S)-6-(5-chloropyridin-2-yl)-7-oxo-6,7-dihydro-5H-pyrrolo[3,4-b]pyrazin-5-yl 4-methylpiperazine-1-carboxylate; and

1-Piperazinecarboxylic acid, 4-methyl-, (5S)-6-(5-chloro-2-pyridinyl)-6,7-dihydro-7-oxo-5H-pyrrolo[3,4-b]pyrazin-5-yl ester.

(c) Molecular Weight: 388.81

(d) Empirical Formula: $C_{17}H_{17}ClN_6O_3$

(2) "A complete identification of the Federal statute including the applicable provision of law under which the regulatory review occurred;" 37 C.F.R. § 1.740(a)(2).

Section 505 of the Federal Food, Drug, and Cosmetic Act (FDC Act), 21 U.S.C. § 355, is the Federal statute under which the Food and. Drug Administration's (FDA's) regulatory review of Sepracor's LUNESTA™ investigational new drug (IND) application and new drug application (NDA) for eszopiclone occurred. Section 505(b) of the FDC Act, 21 U.S.C. § 355(b), authorizes the filing of an NDA for a "new drug". The FDA subsequently approved the LUNESTA™ NDA (021-476) under the authority granted the agency by Section 505(c) of the FDC Act, 21 U.S.C. § 355(c).

(3) "An identification of the date on which the product received permission for commercial marketing or use under the provision of law under which the applicable regulatory review period occurred;" 37 C.F.R. § 1.740(a)(3).

On December 15, 2004, the FDA issued an "approval letter" for Sepracor's LUNESTA™ (eszopiclone) NDA under Section 505 of the FDC Act. Although FDA takes the position

that the product was "approved" on that date for purposes of determining patent term extension, Sepracor questions whether "the product received permission for commercial marketing" on that date within the meaning of the statute. Sepracor notes that FDA has taken the position that Sepracor cannot market LUNESTA™ under the terms of the "approval letter" until the product is listed on the Schedule of Controlled Substances under 21 USC §823. Nonetheless, in order to avoid potential forfeiture under 35 USC §156(d)(1) based on FDA's current interpretation of the statute, Sepracor submits this request for extension based on FDA's determination that LUNESTA™ was "approved" for purposes of patent term extension on December 15, 2004. In so doing, Sepracor does not waive its right to challenge that determination by FDA.

(4) "In the case of a drug product, an identification of each active ingredient in the product and as to each active ingredient, a statement that it has not been previously approved for commercial marketing or use under the Federal Food, Drug and Cosmetic Act, the Public Health Service Act, or the Virus-Serum- Toxin Act, or a statement of when the active ingredient was approved for commercial marketing or use (either alone or in combination with other active ingredients), the use for which it was approved, and the provision of law under which it was approved." 37 C.F.R. § 1.740(a)(4).

The active ingredient in LUNESTA™ (eszopiclone) film-coated tablets is eszopiclone. Eszopiclone has not been previously approved for commercial marketing or use under the Federal Food, Drug and Cosmetic Act, the Public Health Service Act or the Virus-Serum-Toxin Act. Eszopiclone is the dextrotatory enantiomer of the racemic mixture zopiclone. Zopiclone has not been previously approved by the FDA.

(5) "A statement that the application is being submitted within the sixty day period permitted for submission pursuant to § 1.720(f) and an identification of the last day on which the application could be submitted;" 37 C.F.R. § 1.740(a)(5)

This application is being submitted within the sixty-day period following FDA approval of the LUNESTA™ (eszopiclone) NDA. FDA approved the LUNESTA™ (eszopiclone) NDA on December 15, 2004. The sixty-day period following approval of the NDA for submission of this patent extension application will expire on February 13, 2005.

(6) "A complete identification of the patent for which an extension is being sought by the name of the inventor, the patent number, the date of issue, and the date of expiration;" 37 C.F.R. § 1.740(a)(6).

U.S. Patent No. 6,444,673

Inventors: Claude COTREL and Gerard ROUSSEL

Issue date: September 3, 2002

Expiration Date: January 16, 2012

(7) "A copy of the patent for which an extension is being sought, including the entire specification (including claims) and drawings;" 37 C.F.R. § 1.740(a)(7).

A copy of U.S. Patent No. 6,444,673 is attached as Exhibit A.

(8) "A copy of any disclaimer, certificate of correction, receipt of maintenance fee payment, or re-examination certificate issued in the patent," 37 C.F.R. § 1.740(a)(8).

U.S. Patent No. 6,444,673 issued on September 3, 2002. Maintenance fees are not due until March 3, 2006.

No disclaimer, certificate of correction or re-examination certificate has issued to date in connection with U.S. Patent No. 6,444,673.

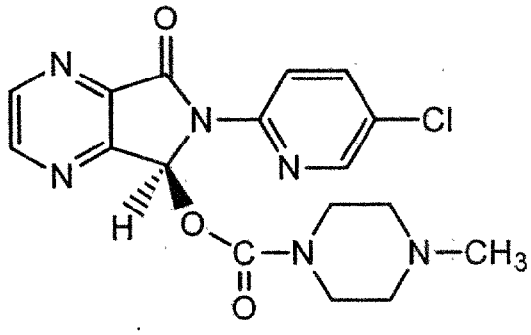
(9) "A statement that the patent claims the approved product or a method of using or manufacturing the approved product, and a showing which lists each applicable patent claim and demonstrates the manner in which one such patent claim reads on:

(i) The approved product if the listed claims include any claim to the approved product;

(ii) The method of using the approved product, if the listed claims include any claim to the method of using the approved product;

(iii) The method of manufacturing the approved product, if the listed claims include any claim to the method of manufacturing the approved product;" 37 C.F.R. §1.740(a)(9).

U.S. Patent No. 6,444,673 claims the approved product eszopiclone. Claims 1, 3 and 4 are directed to the dextrorotatory isomer of 6-(5-chloro-2-pyridyl)-5-[(4-methyl-1-piperazinyl)carbonyloxy]-7-oxo-6,7-dihydro-5H-pyrrolo[3,4-b]pyrazine and pharmaceutically acceptable salts thereof. Claims 2, and 5-8 are directed to a pharmaceutical composition comprising eszopiclone. Eszopiclone is the generic name for the dextrorotatory isomer of 6-(5-chloro-2-pyridyl)-5-[(4-methyl-1-piperazinyl)carbonyloxy]-7-oxo-6,7-dihydro--5H-pyrrolo[3,4-b]pyrazine and has the following formula:



Representative claims of U.S. Patent No. 6,444,673 are reproduced below.

1. 6-(5-chloro-2-pyridyl)-5-[(4-methyl-1-piperazinyl)carbonyloxy]-7-oxo-6,7-dihydro-5H-pyrrolo[3,4-b]pyrazine, or a pharmaceutically acceptable salt thereof, in the form of its dextrorotatory isomer and essentially free of its levorotatory isomer.

2. A pharmaceutical composition comprising an effective amount of the dextrorotatory isomer, essentially free of the levorotatory isomer of 6-(5-chloro-2-pyridyl)-5-[(4-methyl-1-piperazinyl)-carbonyloxy]-7-oxo-6,7- dihydro-5H-pyrrolo[3,4-b]pyrazine, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

(10) A statement, beginning on a new page of the relevant dates and information pursuant to 35 U.S.C. § 156(g) in order to enable the Secretary of Health and Human Services, or the Secretary of Agriculture, as appropriate, to determine the applicable regulatory review period as follows:

(i) For a patent claiming a human drug, antibiotic or human biological product:

(A) The effective date of the investigational new drug (IND) application and the IND number;

(B) The date on which a new drug application (NDA) ....was initially submitted and the NDA or PLA number :and

(C) The date on which the NDA was approved or the Product License issued; 37 C.F.R. § 1.740(a)(10)(i).

In order to enable the Secretary to determine the applicable regulatory review period, the following information is provided:

(a) Sepracor Inc. filed its Investigational New Drug (IND) application for LUNESTA™ (eszopiclone) on July 22, 1999 (IND 58,647), and it became effective on August 21, 1999;

(b) Sepracor Inc. initially submitted a new drug application (NDA) for LUNESTA™ (eszopiclone) to the FDA, via electronic submission, on January 30, 2003, and confirmation of receipt was received on January 31, 2003 (NDA 021-476);

(c) Sepracor received an Approval Letter from the FDA for LUNESTA™ (eszopiclone) NDA 021-476 on December 15, 2004.

(11) "A brief description beginning on a new page of the significant activities undertaken by the marketing applicant during the applicable regulatory review period with respect to the approved product and the significant dates applicable to such activities;" 37 C.F.R. § 1.740(a)(11).

Attached is a chronology that briefly describes the significant regulatory activities and relevant dates associated with Sepracor Inc.'s efforts to seek approval of this product before the FDA (Exhibit B).

(12) "A statement beginning on a new page that in the opinion of the applicant the patent is eligible for the extension and a statement as to the length of the extension claimed, including how the length of extension was determined;" 37 C.F.R.§ 1.740(a)(12).

Statement of Eligibility of the Patent for Extension

It is the opinion of the Applicant that U.S. Patent No. 6,444,673 is eligible for an extension. This opinion is based on the following information on U.S. Patent No. 6,444,673:

(a) 35 U.S.C. § 156(a): U.S. Patent No. 6,444,673 claims the approved human drug product LUNESTA™ (eszopiclone).

(b) 35 U.S.C. § 156 (a)(1): The term of said patent has not expired prior to the submission of this application.

(c) 35 U.S.C. § 156 (a)(2): The term of said patent has never been previously extended under 35 U.S.C. § 156 (e)(l).

(d) This application for extension is in compliance with 37 C.F.R. § 1.740.

(e) 35 U.S.C. § 156(a)(4): The product, LUNESTA™ (eszopiclone), has been subject to a regulatory review period as defined in 35 U.S.C. § 156(g) before its commercial marketing or use.

(f) 35 U.S.C. § 156(a)(5)(A): The NDA for the product received approval under the provision of law (i.e., FDC Act §505) under which the applicable regulatory review occurred.

(g) This application was submitted within sixty (60) days from the December 15, 2004 NDA approval date.

(h) 35 U.S.C. § 156(c)(4): No other patent term has been extended for the same regulatory review period for this product.

Statement as to Length of Extension Claimed

The term of U.S. Patent No. 6,444,673 should be extended by 760 days (i.e. 2 years 30 days), or until February 14, 2014 (as 2012 is a leap year). This term of extension was determined on the following bases.

First, the following calculation of the regulatory period is in accordance with 35 U.S.C. § 156 and 37 C.F.R. § 1.775. The length of this extension was determined as follows:

The effective date of the Investigational New Drug (IND) application is August 21, 1999, which was thirty (30) days after FDA receipt of the IND on July 22, 1999. The IND number is 58,647.

The new drug application (NDA) for LUNESTA™ was initially submitted via electronic filing to the FDA on January 30, 2003 and receipt was acknowledged by the FDA on January 31, 2003.

An approval letter for the NDA was issued by the FDA on December 15, 2004.

U.S. Patent No. 6,444,673 issued on September 3, 2002, and is entitled to a patent term of 20 years from the earliest filing date (January 16, 1992).

As set forth in 35 U.S.C. § 156(g)(1)(B), the regulatory review period for a new drug equals the sum of the following periods (i) and (ii):

(i) The time between the date an exemption under §505(i) of the FFDCA became effective (the effective date of the IND) and the date an application was initially submitted under §505 of the FFDCA (the date of the initial submission of the NDA).

An IND for the product was effective on August 21, 1999. The NDA for the product was submitted on January 30, 2003. Thus, for the purpose of this calculation, item (i) for the product equals the number of days from August 21, 1999, to January 30, 2003, or 1258 days.

(ii) The time between the date an application was initially submitted under §505(b) of the FFDCA (the date of the initial submission of the NDA) and the date the application was approved (the approval date of the NDA).

The NDA for the product was submitted on January 30, 2003. The NDA was approved on December 15, 2004. Thus, for the purpose of this calculation, item (ii) equals the number of days from January 30, 2003, to December 15, 2004, or 685 days.

In accordance with 35 U.S.C. § 156(c), the term of a patent eligible for extension shall be extended by the time equal to the regulatory review period for the approved product which occurred after the date the patent issued. U.S. Patent No. 6,444,673 issued on September 2, 2002. For the portion of the regulatory review period calculated pursuant to item (i) above, the period occurring after issuance of the patent equals the number of days from September 2, 2002 to January 30, 2003, or 150 days. The entire regulatory review period calculated for item (ii) above occurred after the issuance date of the patent.

Second, 35 U.S.C. § 156(c)(1)-(3) also set forth the following exceptions which may operate to reduce the length of the review period used to calculate patent term extension.

(1) Each period is reduced by any period during which the applicant did not act with due diligence.

There has been no lack of due diligence during the period of regulatory review.

Accordingly, no reduction in the review period is required by this provision.

(2) Each period includes only one-half of the number of days in phase (i).

One-half of the number of days in phase (i) equals one-half of 150 days, or 75 days. Adding this number of days to the number of days in phase (ii) (685 days) results in a review period of 760 days.

(3) If the period remaining in the patent term after the date of approval of the approved product when added to the regulatory review period as revised under paragraphs (1) and (2) above exceeds fourteen years, the period of extension shall be reduced so that the sum of both such periods does not exceed fourteen years.

On the date of approval of the NDA for the product, December 15, 2004, 9 years and 146 days remained in the term of U.S. Patent No. 6,444,673. Adding this period to the review period calculated above yields a period of less than fourteen years. This provision, therefore, does not affect the period of extension to which U.S. Patent No. 6,444,673 is entitled.

Third, 35 U.S.C. §156(g)(6) limits the period of patent term extension to a maximum of five years from the original expiration date of the patent. The original expiration date of U.S. Patent No. 6,444,673 is January 16, 2012. Accordingly, the maximum extension allowed by this provision would extend the term to January 16, 2017. Extension of the patent by the number of days calculated above would not extend the patent beyond this date. Accordingly, this provision does not operate to shorten the period of extension to which U.S. Patent No. 6,444,673 is entitled.

Thus, U.S. Patent No. 6,444,673 is entitled to an extension of 760 days (i.e. 2 years and 30 days), to February 14, 2014.

(13) "A statement that applicant acknowledges a duty to disclose to the Director of the United States Patent and Trademark Office and the Secretary of Health and Human Services or the Secretary of Agriculture any information which is material to the determination of entitlement to the extension sought;" 37 C.F.R. § 1.740(a)(13).

Applicant acknowledges a duty to disclose to the Director of the United States Patent and Trademark Office and the Secretary of Health and Human Services or the Secretary of Agriculture any information which is material to any determination of entitlement to the extension sought.

(14) "The prescribed fee for receiving and acting upon the application for extension (see §1.20(j));" 37 C.F.R.§ 1.740(a)(14).

Pursuant to 37 C.F.R. § 1.20(j), a check in the amount of $1,120.00 is enclosed with this application.

Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Director is hereby authorized to charge Deposit Account No. 08-1935 for any such fees. Should a refund of fee paid be necessary, the Director is hereby authorized to credit any such amount to Deposit Account No. 08-1935.

(15) "The name, address and telephone number of the person to whom inquiries and correspondence relating to the application for patent term extension are to be directed;" 37 C.F.R.§ 1.740(a)(15).

Please direct all inquiries and correspondence relating to this application for term extension to:

Philip E. Hansen
HESLIN ROTHENBERG FARLEY & MESITI, P.C.
5 Columbia Circle
Albany, New York 12203-5160
Telephone: (518) 452-5600
Facsimile: (518) 452-5579

(16) "The application under this section must be accompanied by two additional copies of such application (for a total of three copies)." 37 C.F.R.§ 1.740(b).

This application for patent extension, including its attachments, is being submitted as one original and two duplicate copies thereof.

Respectfully submitted,

February 11, 2005
Date

Philip E. Hansen
Agent for Applicants
Reg. No. 32,700